

Amendments to the Claims:

Please amend the claims as indicated.

1. (Currently Amended) A method of patterning a substrate with a template having a mold, said method comprising:
positioning conformable material between said substrate and said mold;
filling a volume defined between said mold and said substrate with said conformable material through capillary action between said conformable material and one of said mold and said substrate; and
~~controlling movement between~~ applying a pulling force on at least one of
said substrate and said mold to ~~minimize~~ compensate for tensile forces,
associated with said capillary action, upon said mold[[; and]]
~~solidifying said conformable material.~~
2. (Original) The method as recited in claim 1 wherein positioning said conformable material further includes disposing said conformable material on said mold and placing said mold in superimposition with said substrate.
3. (Previously Presented) The method as recited in claim 1 wherein positioning said conformable material further includes disposing said conformable material on said substrate and placing said mold in superimposition with said substrate.
4. (Original) The method as recited in claim 1 wherein filling said volume further includes filling said volume by capillary action of said conformable material with both said mold and said substrate.
5. (Original) The method as recited in claim 1 wherein filling said volume further includes establishing a distance between said template and said conformable material to allow a sub-section of said template to contact said conformable material.

6. (Original) he method as recited in claim 1 wherein filling said volume further includes establishing a distance between said template and said conformable material to allow a sub-section of said template to contact said conformable material while minimizing variances in said distance to attenuate creation of compressive forces between said mold and said conformable material.

7. (Previously Presented) The method as recited in claim 1 wherein positioning said conformable material further includes depositing said conformable material on a sub-portion of a region with filling said volume further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material.

8. (Previously Presented) The method as recited in claim 1 wherein positioning said conformable material further includes depositing said conformable material on a sub-portion of a region with filling said volume further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material while restricting movement of said conformable material outside of said region by capillary action of said conformable material with said mold.

9. (Original) The method as recited in claim 1 wherein said template further includes first and second molds, with said first mold being disposed opposite to a first region of said substrate, and said second mold being disposed opposite to a second region of said substrate, with said conformable material disposed in a sub-area of said first region and a sub-part of said second region, with filling said volume further including restricting movement of said conformable material in said sub-area outside of said first region and restricting movement of said conformable material in said sub-part outside of said second region by capillary action of said conformable material with said mold.

10. (Currently Amended) The method as recited in claim [[1]] 31 wherein solidifying said conformable material further includes exposing said conformable material to actinic radiation.

11. (Original) The method as recited in claim 10 wherein said actinic radiation consists of ultraviolet radiation.

12. (Previously Presented) The method as recited in claim 1 wherein said template further includes a plurality of spaced-apart molds, a first subset of which is disposed opposite to a first region of said substrate, with remaining molds of said plurality of spaced-apart molds being disposed opposite to a second region of said substrate, with said conformable material being disposed in said first region and absent from said second region.

13. (Original) The method as recited in claim 12 wherein said first subset consists of one mold.

14. (Currently Amended) A method of patterning a substrate with a template having a mold, said method comprising:
positioning conformable material between said substrate and said mold;
establishing a distance between said mold and said substrate to facilitate filling a volume, defined between said mold and said substrate, with said conformable material through capillary action between said conformable material and one of said mold and said substrate to form a contiguous layer of said conformable material having first and second sub-portions, said first sub-portions having a first thickness and said second sub-portions having a second thickness differing from said first thickness, with said first and second thicknesses being greater than zero; and
~~controlling said distance to minimize~~ applying a pulling force on one of said substrate and said mold to compensate for tensile forces, associated with

said capillary action, upon said mold, ~~such that a thickness uniformity of said conformable material is maximized; and~~
~~solidifying said conformable material.~~

15. (Original) The method as recited in claim 14 wherein establishing said distance further includes minimizing variations in said distance to be within a predetermined range of variations.

16. (Original) The method as recited in claim 14 wherein solidifying said conformable material further includes exposing said conformable material to actinic radiation.

17. (Original) The method as recited in claim 14 wherein establishing said distance further includes maintaining said distance to be within a predetermined range to attenuate creation of compressive forces between said mold and said conformable material.

18. (Previously Presented) The method as recited in claim 14 wherein positioning said conformable material further includes depositing said conformable material on a sub-portion of a region with filling said volume further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material.

19. (Previously Presented) The method as recited in claim 14 wherein positioning said conformable material further includes depositing said conformable material on a sub-portion of a region with filling said volume further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material while restricting movement of said conformable material outside of said region by capillary action of said conformable material with said mold.

20. (Original) The method as recited in claim 14 wherein said template further includes first and second molds, with said first mold being disposed opposite to a first region of said substrate, and said second mold being disposed opposite to a second region of said substrate, with said conformable material disposed in a sub-area of said first region and a sub-part of said second region, with filling said volume further including restricting movement of said conformable material in said sub-area outside of said first region and restricting movement of said conformable material in said sub-part outside of said second region by capillary action of said conformable material with said mold.

21. (Previously Presented) The method as recited in claim 14 wherein said template further includes a plurality of spaced-apart molds, a first subset of which is disposed opposite to a first region of said substrate, with remaining molds of said plurality of spaced-apart molds being disposed opposite to a second region of said substrate, with said conformable material being disposed in said first region and absent from said second region.

22. (Currently Amended) A method of patterning a substrate with a template, said method comprising:

forming conformable material on said substrate;

placing said template in superimposition with said conformable material, with said template including a mold facing said conformable material;

moving a sub-portion of said conformable material, through capillary action between said conformable material and one of said mold and said substrate, in a direction away from said substrate to wet a region of said mold and conform to a shape thereof, defining a complimentary shape forming a contiguous layer of said conformable material having first and second sub-portions, said first sub-portions having a first thickness and said second sub-portions having a second thickness differing from said first thickness, with said first and second thicknesses being greater than zero;

~~controlling movement between~~ applying a pulling force on one of said substrate and said mold to ~~minimize~~ compensate for tensile forces, associated with said capillary action, upon said mold~~[[; and]]~~
~~solidifying said conformable material.~~

23. (Previously Presented) The method as recited in claim 22 wherein moving said sub-portion further includes filling a volume defined between said mold and said substrate by capillary action of said conformable material with both said mold and said substrate.

24. (Original) The method as recited in claim 23 wherein filling said volume further includes establishing a distance between said template and said conformable material to allow a sub-section of said template to contact said conformable material.

25. (Original) The method as recited in claim 24 wherein filling said volume further includes establishing a distance between said template and said conformable material to allow a sub-section of said template to contact said conformable material while minimizing variances in said distance to attenuate creation of compressive forces between said mold and said conformable material.

26. (Previously Presented) The method as recited in claim 25 wherein forming said conformable material further includes depositing said conformable material on a sub-portion of said region with filling said volume further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material while restricting movement of said conformable material outside of said region by capillary action of said conformable material with said mold.

27. (Original) The method as recited in claim 26 wherein said template further includes first and second molds, with said first mold being disposed opposite to a first region of said substrate, and said second mold being disposed opposite to a second region of said substrate, with said conformable material disposed in a sub-area of said first region and a sub-part of said second region, with filling said volume further including restricting movement of said conformable material in said sub-area outside of first region and restricting movement of said conformable material in said sub-part outside of said second region by capillary action of said conformable material with said mold.

28. (Previously Presented) The method as recited in claim 26 wherein said template further includes a plurality of spaced-apart molds, a first subset of which is disposed opposite to a first region of said substrate, with remaining molds of said plurality of spaced-part molds being disposed opposite to a second region of said substrate, with said conformable material being disposed in said first region and absent from said second region.

29. (Original) The method as recited in claim 28 wherein said first subset consists of one mold.

30. (Currently Amended) The method as recited in claim ~~[[28]]~~ 34 wherein solidifying further includes exposing said conformable material to actinic radiation.

31. (New) The method as recited in claim 1 further including solidifying said conformable material.

32. (New) The method as recited in claim 1 wherein applying said force further includes maximizing a thickness uniformity of said conformable material

33. (New) The method as recited in claim 14 wherein applying said force further includes maximizing a thickness uniformity of said conformable material.

34. (New) The method as recited in claim 14 further including solidifying said conformable material.

35. (New) The method as recited in claim 22 further including solidifying said conformable material.

36. (New) A method of patterning a substrate with a template having a mold, said method comprising:

positioning a plurality of droplets of a conformable material on said substrate; and

spreading said droplets across said substrate through capillary action between said conformable material in said droplets and one of said mold and said substrate to form a contiguous layer of said conformable material having first and second sub-portions, said first sub-portions having a first thickness and said second sub-portions having a second thickness differing from said first thickness, with said first and second thicknesses being greater than zero.

37. (New) The method as recited in claim 36 further including positioning said mold adjacent said substrate, said mold comprising a plurality of protrusions and recessions, with said recessions being spaced-apart from said substrate said first thickness and said protrusions being spaced-apart from said substrate said second thickness.

38. (New) The method as recited in claim 37 wherein spreading said droplets further includes said first thickness being greater than said second thickness.

39. (New) The method as recited in claim 36 wherein spreading said droplets further includes spreading said droplets by capillary action of said conformable material with both said mold and said substrate.

40. (New) The method as recited in claim 36 wherein spreading said droplets further includes establishing a distance between said template and said conformable material to allow a sub-section of said template to contact said conformable material.

41. (New) The method as recited in claim 36 wherein spreading said droplets further includes establishing a distance between said template and said conformable material to allow a sub-section of said template to contact said conformable material while minimizing variances in said distance to attenuate creation of compressive forces between said mold and said conformable material.

42. (New) The method as recited in claim 36 wherein positioning said plurality of droplets further includes depositing said plurality of droplets on a sub-portion of a region with spreading said droplets further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material.

43. (New) The method as recited in claim 36 wherein positioning said plurality of droplets further includes depositing said plurality of droplets on a sub-portion of a region with spreading said droplets further including wetting both said mold and areas of said region outside of said sub-portion with said conformable material while restricting movement of said conformable material outside of said region by capillary action of said conformable material with said mold.

44. (New) The method as recited in claim 36 wherein said template further includes first and second molds, with said first mold being disposed

opposite to a first region of said substrate, and said second mold being disposed opposite to a second region of said substrate, with said plurality of droplets disposed in a sub-area of said first region and a sub-part of said second region, with spreading said droplets further including restricting movement of said conformable material in said sub-area outside of said first region and restricting movement of said conformable material in said sub-part outside of said second region by capillary action of said conformable material with said mold.

45. (New) The method as recited in claim 36 further including solidifying said conformable material.

46. (New) The method as recited in claim 45 wherein solidifying said conformable material further includes exposing said conformable material to actinic radiation.

47. (New) The method as recited in claim 46 wherein said actinic radiation consists of ultraviolet radiation.

48. (New) The method as recited in claim 36 wherein said template further includes a plurality of spaced-apart molds, a first subset of which is disposed opposite to a first region of said substrate, with remaining molds of said plurality of spaced-apart molds being disposed opposite to a second region of said substrate, with said conformable material being disposed in said first region and absent from said second region.

49. (New) The method as recited in claim 48 wherein said first subset consists of one mold.

50. (New) A method of patterning a substrate, having first and second portions, with a template having a mold, said method comprising:

positioning a plurality of droplets of a conformable material on said first portion of said substrate, with said second portion substantially absent of said plurality of droplets;

positioning said mold to be spaced-apart from said substrate, defining a gap therebetween; and

spreading said droplets across said substrate through capillary action between said conformable material in said droplets and one of said mold and said substrate to form a contiguous layer of said conformable material having first and second sub-portions, said first sub-portions having a first thickness and said second sub-portions having a second thickness differing from said first thickness, said first and second thicknesses being greater than zero, with said capillary action being a function of said gap.

51. (New) The method as recited in claim 50 further including solidifying said conformable material.

52. (New) A method of patterning a substrate with a mold having a plurality of recesses and protrusions, the method comprising:

depositing a plurality of discrete and spaced-apart droplets of an imprint material on an upper surface of the substrate;

contacting at least some of the plurality of droplets with the mold; and

allowing capillary forces to spread the plurality of droplets of the imprint material across the substrate and into the plurality of recesses of the mold.

53. (New) The method of claim 52 wherein the step of allowing capillary forces relies at least primarily on capillary forces to spread the plurality of droplets of the imprint material across the substrate and into the plurality of recesses of the mold.

54. (New) The method of claim 53 wherein the imprint material has a low viscosity and ability to wet the upper surface of the substrate and/or the mold.

55. (New) The method of claim 53 wherein the imprint material has a viscosity between 0.5-5 centipoises.

56. (New) The method of claim 55 wherein the imprint material is polymerizable by exposure to ultraviolet radiation.

57. (New) The method of claim 56 further comprising, after the spreading step, exposing the imprint material to the ultraviolet radiation to solidify the material and removing the mold from the substrate leaving an imprinted solidified layer on the upper surface of the substrate, the imprinted layer having a pattern of a plurality of raised portions that correspond to the plurality of recesses of the mold.

58. (New) The method of claim 57 further comprising, after the step of removing the mold from the substrate, etching the substrate to transfer the pattern of the imprinted layer into the substrate.

59. (New) The method of claim 53 wherein the step of allowing capillary forces to spread the plurality of droplets includes applying a force to at least one of the mold or the substrate to attenuate or nullify forces associated with capillary action.

60. (New) The method of claim 53 wherein each of the plurality of droplets formed on the upper surface of the substrate has a hemispherical shape and wherein the step of contacting distorts the hemispherical shape of at least some of the droplets to initiate wetting and spreading of the droplets across the surface of the substrate.

61. (New) The method of claim 60 wherein the step of contacting further initiates capillary forces that, during the allowing step, cause a negative imprint force on the mold.

62. (New) The method of claim 61 wherein the allowing step comprises minimizing the negative imprint force by applying a compensating force to at least one of the mold or the substrate.

63. (New) The method of claim 62 wherein the compensating force is applied to the mold.

64. (New) The method of claim 60 wherein the contacting step comprises moving the mold relative to the substrate along the z-axis.

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